

Appl. No. 10/734,381
Atty. Docket No. 7858MRR
Amdt. Dated September 18, 2007
Reply to Office Action Dated May 22, 2007
Customer Number 27752

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AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (*Currently Amended*) A method of enhancing protection of teeth against caries and cavities and increasing resistance to acid demineralization associated with caries processes comprising administering to a subject's oral cavity an oral care composition comprising a combination of (a) a phosphonate group containing copolymer or cotelomer that is substantive to teeth and provides increased hydrophilic character to teeth surfaces and (b) one or more fluoride ion sources to provide enhanced fluoride incorporation into and remineralization of the subject's teeth, wherein the phosphonate group containing copolymer or cotelomer has an average molecular weight of from about 3,000 to about 60,000 and is prepared by copolymerizing a phosphonate containing monomer selected from vinylphosphonic acid, vinylidiphosphonic acid vinylidene-1,1-diphosphonic acid, 2-(hydroxyphosphinyl)ethylidene-1,1-diphosphonic acid) or salts thereof with at least one other monomer selected from acrylic acid, methacrylic acid or salts thereof.

2. (*Currently amended*) A method according to Claim 1, wherein the phosphonate group containing copolymer or cotelomer comprised in the oral care composition are selected from acrylic acid/2-(hydroxyphosphinyl)ethylidene-1,1-diphosphonic acid cotelomer, acrylic acid/vinylidiphosphonic acid copolymer or salts thereof ~~copolymers or cotelomers prepared from copolymerizing acrylate or methacrylate monomers with diphosphonate or polyphosphonate containing monomers.~~

3. (*Previously presented*) A method according to Claim 2, wherein the phosphonate group containing copolymer or cotelomer comprised in the oral care composition is poly (diphosphonate/acrylate).

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4. *(Original)* A method according to Claim 1, wherein the fluoride ion source is selected from sodium fluoride, stannous fluoride, indium fluoride, amine fluoride and sodium monofluorophosphate and provides from about 50 ppm to about 5000 ppm of free fluoride ions.
5. *(Original)* A method according to Claim 1, wherein the administered oral care composition further comprises one or more additional oral care agents selected from the group consisting of antimicrobial/antiplaque agents, biofilm inhibiting agents, dentinal desensitizing agents; anticalculus agents, calcium ion sources, strontium ion sources, phosphate ion sources, teeth whitening agents, odor masking agents; and mixtures thereof.
6. *(Original)* A method according to Claim 5, wherein the administered oral care composition further comprises an antimicrobial/antiplaque agent selected from the group consisting of triclosan, cetylpyridinium chloride, chlorhexidine, alexidine, hexetidine, sanguinarine, benzalkonium chloride, salicylanilide, domiphen bromide, cetylpyridinium chloride (CPC), tetradecylpyridinium chloride (TPC), N-tetradecyl-4-ethylpyridinium chloride (TDEPC), octenidine, delmopinol, octapinol, nisin, a zinc ion source, a stannous ion source, a copper ion source, an essential oil and mixtures thereof, thereby providing benefits against gingivitis, periodontal disease and oral infections.
7. *(Withdrawn)* A method according to Claim 5, wherein the administered oral care composition further comprises one or a mixture of dentinal desensitizing agent selected from salts of potassium, calcium, strontium and tin.
8. *(Withdrawn)* A method according to Claim 5, wherein the administered oral care composition further comprises one or a mixture of a calcium ion source, a phosphate ion source or a strontium ion source, thereby further enhancing remineralization of teeth.
9. *(Withdrawn)* A method according to Claim 5, wherein the administered oral care composition further comprises a teeth whitening agent selected from the group consisting of

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hydrogen peroxide, calcium peroxide, urea peroxide, sodium percarbonate, sodium chlorite and mixtures thereof.

10. (*Original*) A method according to Claim 1, wherein the administered oral care composition is in a form selected from toothpaste, tooth powder, tooth gel, mouthrinse, denture product, mouthspray, lozenge, chewable dentifrice tablet, or chewing gum.